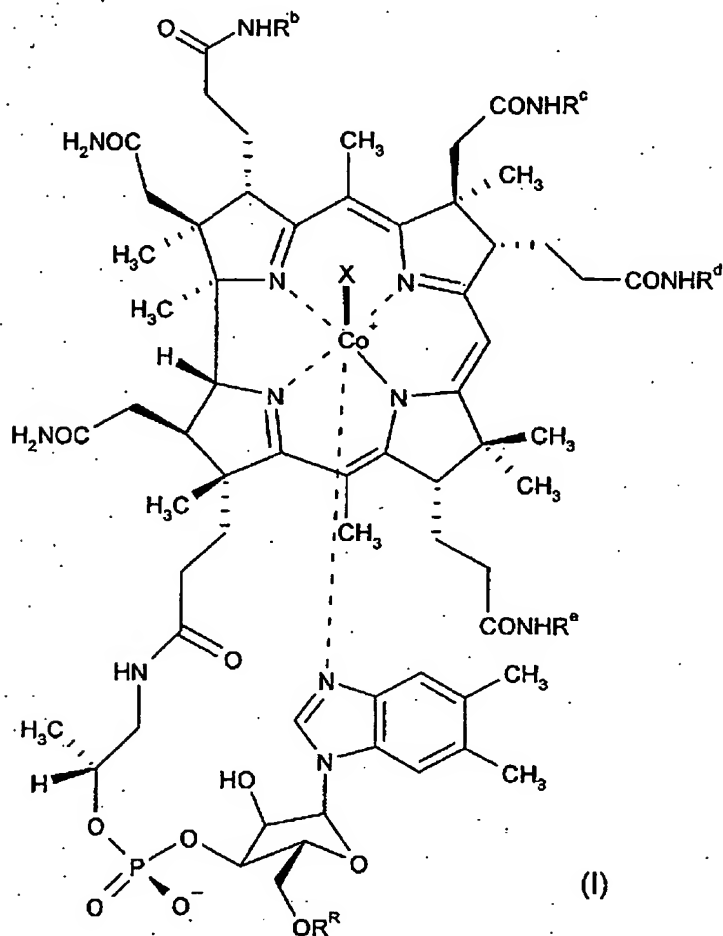


RECEIVED  
CENTRAL FAX CENTER  
APR 29 2009

## **PROPOSED AMENDMENTS TO THE CLAIMS**

**1. (Currently Amended)** A cobalamin derivative of formula (I):



wherein;

(i)  $R^b$  is a spacer-chelator group optionally carrying a metal atom;

(ii)  $R^c$ ,  $R^d$ , and  $R^e$  are an antibiotic or antiproliferative therapeutic agent, or hydrogen; and

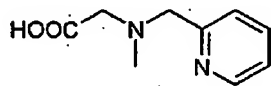
$R^R$  is an antibiotic or antiproliferative therapeutic agent connected through a linker Z, or

hydrogen, wherein the linker Z is selected from the group consisting of phosphates,

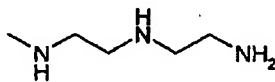
phosphonates, carboxylic esters, alkylenes of 1 to 10 carbon atoms, and combinations thereof;

(iii) with the proviso that at least one of the residues  $R^c$ ,  $R^d$ ,  $R^e$  and  $R^f$  are hydrogen;

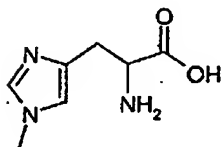
- (iv) X is cyano, methyl, hydroxy, aquo or a 5'-deoxyadenosyl group; and
- (v) the central cobalt (Co) atom is optionally in the form of a radioactive isotope; and
- wherein the spacer-chelator group consists of an aliphatic chain of 2 to 4 carbon atoms carrying a chelator selected from the chelators of formulae (II) to (IX):



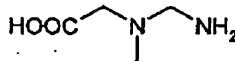
(II)



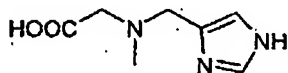
(III)



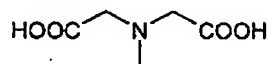
(IV)



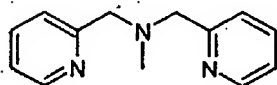
(V)



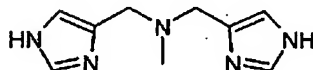
(VI)



(VII)



(VIII)



(IX)

wherein carboxyl groups in formulae (II) to (IX) may be present as esters; and  
said cobalamin derivative:

- (a) has no binding affinity or less than 20% binding affinity to transcobalamin II when compared to the binding affinity of non-modified cobalamin in a binding test, and
- (b) retains activity as a vitamin B12 substitute.

Serial No. 10/583,760  
Attorney Docket No. 2006\_0804A  
April 21, 2009

**20. (Currently amended)** A method of diagnosis of a neoplastic disease in a mammal comprising

- (a) exposing the mammal suspected of being inflicted by a neoplastic disease ~~or an infection~~ to a period of a vitamin B12 – free diet, and
- (b) subsequently applying a cobalamin derivative according to claim 1 carrying a diagnostic agent.